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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/779,478	02/09/2001	Toru Yamaguchi	018842.1162	9443

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EXAMINER

LEO, LEONARD R

ART UNIT PAPER NUMBER

3753

DATE MAILED: 04/09/2004

*22*

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/779,478

Applicant(s)

YAMAGUCHI ET AL.

Examiner

Leonard R. Leo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 January 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) 7-10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All   b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 22, 2004 has been entered.

Claims 11-12 are cancelled, claims 1-10 are pending, and claims 7-10 remain withdrawn.

### ***Specification***

The disclosure is objected to because of the following informalities:

Paragraph 11 requires an amendment similar to paragraphs 38-39 presented in the submission filed on January 22, 2004.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-6 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

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The specification as originally filed lacks an adequate written description of the invention. There is no support for “a length (T) of an outer surface **and** an inner surface.” As amended to be consistent with Figures 5-6, the specification discloses, “length (T) of the connecting portion is defined as a first distance between a first critical point between second inclined plate portion 24a and between a first inner surface 211 of first flat portion 21a of one waving strip 25a and a second critical point between first inner surface 211 of first flat portion 21b and first inclined plate portion 22b of the other adjacent waving strip 25b.” Therefore, the length (T) is only defined in terms of the “inner surface” of the connecting portion. There is nothing in the originally filed specification disclosing the outer surface **and** the inner surface lengths (T) are equal.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Gerstung et al (as permissibly gleaned from Figure 4).

Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Swaney, Jr.

Claims 1-6 as understood are rejected under 35 U.S.C. 102(b) as being anticipated by Tomoko (JP 7-280,484)(Figure 5).

***Response to Arguments***

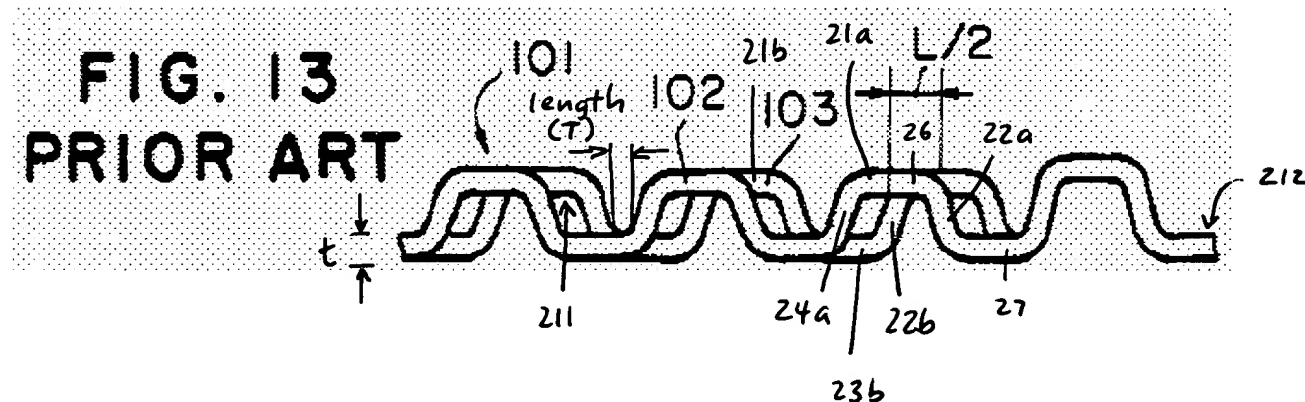
The objection to claims 1 and 3 are withdrawn.

The rejection under 35 USC 112, first paragraph is maintained. The Examiner believes there is no support for ***both*** an outer surface and an inner surface of the connecting portion having a length (T) as claimed. It is believed the outer surface and inner surface have a different length (T). There is nothing in the originally filed specification to indicate the two lengths (T) are the same for the respective outer surface and inner surface. The length (T) of the “connecting portion” is only defined in terms of the inner surface distance, not the outer surface distance. The Examiner is still unclear what the term “connecting portion” means. Is it the physical portion of the fin where two adjacent waving strips are connected but not severed, or are they severed but still contacting one another? As disclosed in Figures 4-5, connecting portions 26 and 27 are the regions where the flat portions overlap.

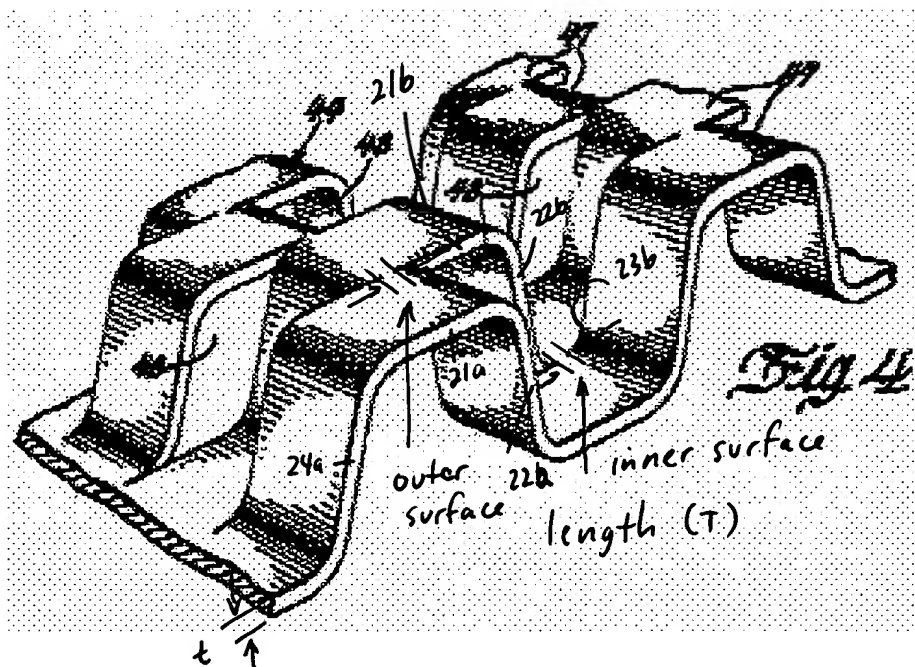
With respect to Tomoko (JP 7-280484), applicants state the “connection length is  $L/2$ .” However, the ***connection length*** is not the same as ***the length (T) of the connecting portion***. Again, applicants are determining the connecting portion length (T) of Tomoko based on critical points inconsistent with applicants’ claims and specification. Thus, it is not clearly understood why applicants are using a different standard when comparing Tomoko with the instant invention. Applicants’ amendment to the specification and Figures 5-6 disclose the length (T) in terms of critical points along the inner surface 211. There is nothing in the originally filed specification of defining the length (T) in terms of the outer surface of the connecting portion.

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As shown below, the length (T) is determined according to applicants' definition in the specification. Reference numerals similar to applicants' Figure 5 are employed for ease of understanding. Thus, the length (T) of the connecting portion of Tomoko is less than plate thickness (t). As evidenced by Gerstung below, the prior art method of forming the offset louvered fin is known to produce a length (T) of both an outer surface and an inner surface of the connecting portions less than or equal to the fin thickness.



With respect to Figure 4 of Gerstung et al, the Examiner does not fully understand applicants' argument. As best understood, applicants' statement, "the overlapping areas of Gerstung's crests are not separated from the adjoining element of each of Gerstung's plates" is exactly the same structure as applicants' connecting portions. The structure of where the "crests are not separated" is where the adjoining elements 47 are uncut and not severed as shown in red on the following page. Reference numerals similar to applicants' Figure 5 are employed for ease of understanding. Thus, the length (T) of the connecting portion of Gerstung is less than plate thickness (t). ). As stated above, Gerstung discloses a length (T) of both an outer surface and an inner surface of the connecting portions less than or equal to the fin thickness.



In summary, the originally filed specification does not disclose a length (T) of each connecting portion defined in terms of **both** the outer surface and inner surface being less than or equal to the fin thickness. Only the inner surface is disclosed to define the length (T).

According to applicants' definition of the length (T) of the connecting portion, both Tomoko and Gerstung meet the claimed invention, such that the length (T) of both the outer surface and inner surface are less than or equal to the fin thickness.

### **Conclusion**

Any inquiry of a general nature, relating to the status of this application or clerical nature (i.e. missing or incomplete references, missing or incomplete Office actions or forms) should be directed to the Technology Center 3700 Customer Service whose telephone number is (703) 306-5648. Status of the application may also be obtained from the Internet: <http://pair.uspto.gov/cgi-bin/final/home.pl>

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Any inquiry concerning this Office action should be directed to Leonard R. Leo whose telephone number is (703) 308-2611.

A handwritten signature in cursive script that reads "Leonard R. Leo".

LEONARD R. LEO  
PRIMARY EXAMINER  
ART UNIT 3753

April 3, 2004